

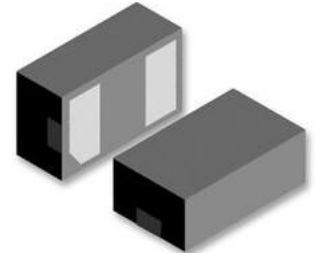
## ESD/ Surge Protection Diode

### Features

- DFN1006 package
- Low leakage current
- Low clamping voltage
- Protects one I/O port
- Bidirectional configurations
- Protection one data/power line to
- IEC 61000-4-2  $\pm 30\text{kV}$  contact  $\pm 30\text{kV}$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns))
- IEC 61000-4-5 (Lightning) 18A (8/20  $\mu\text{s}$ )
- 200Watts peak pulse power (tp = 8/2 $\mu\text{s}$ )
- RoHS compliant



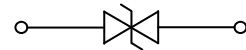
RoHS  
COMPLIANT



Marking : M5

DFN1006

### Schematic Diagram



### Applications

- PDA
- Notebook
- Cell Phone
- Digital Cameras
- Portable Instrumentation
- Audio and video equipment

### Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ , Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Peak Pulse Power (TP=8/20 $\mu\text{s}$ )	$P_{PP}$	200	W
Peak Pulse Current ( tP = 8/20 $\mu\text{s}$ )	$I_{PP}$	18	A
Junction Temperature	$T_J$	-55 to +125	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$

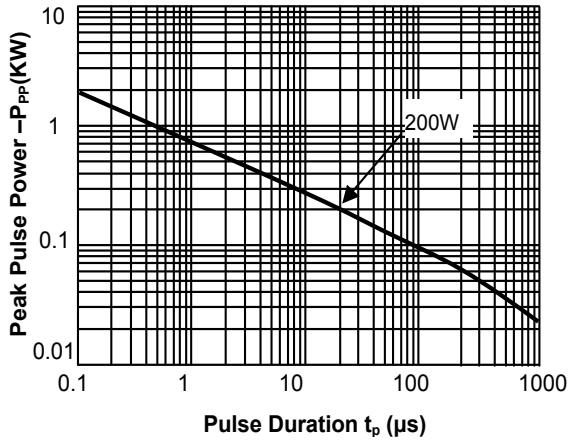
### Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ , Unless otherwise specified.)

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	6.0	6.8		V
Reverse Leakage Current	$I_R$	$V_R=5\text{V}$		0.1	0.5	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=18\text{A}, T_P=8/20\mu\text{s}$			11.5	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$		30		pF

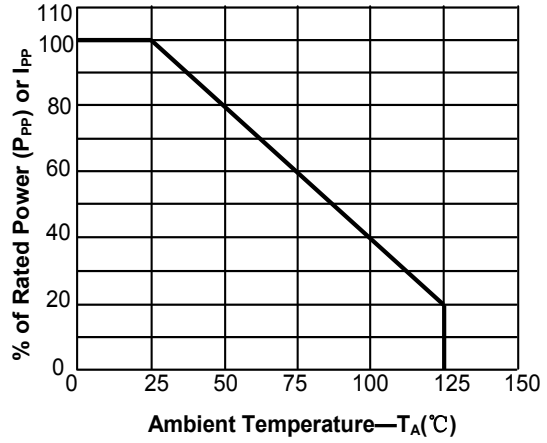
## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

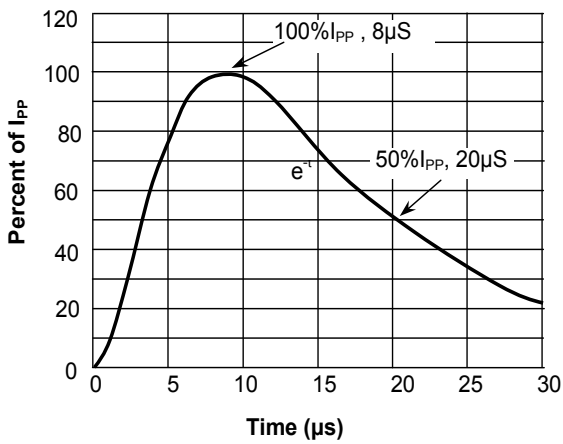
**Fig.1 Peak Pulse Power Rating Curve**



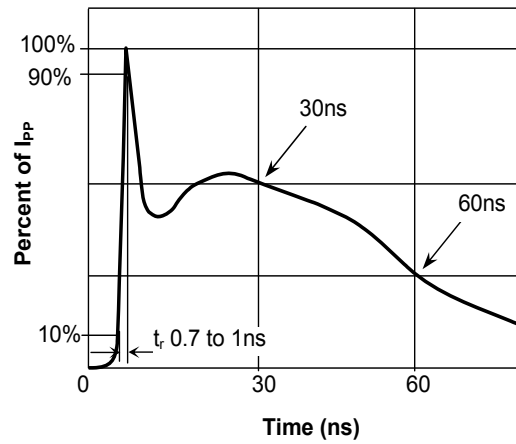
**Fig.2 Pulse Derating Curve**



**Fig.3 Pulse Waveform-8/20μs**

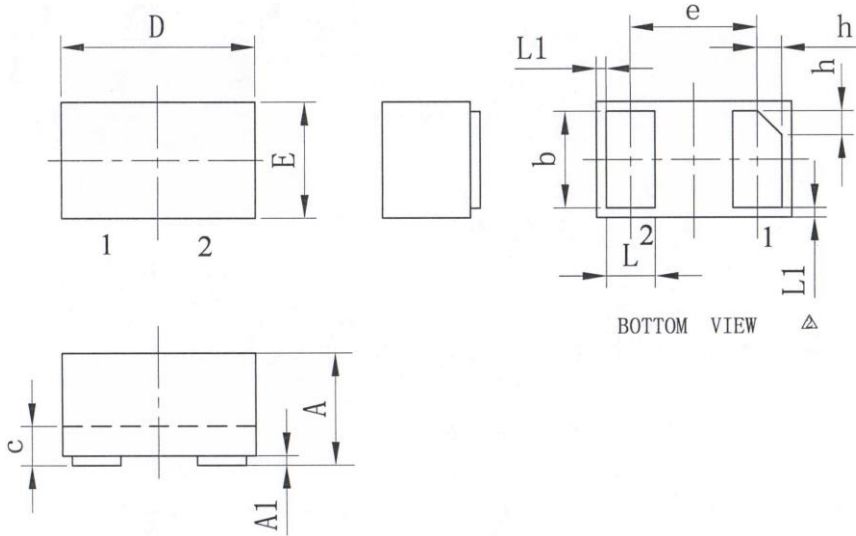


**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



## Package Outline Dimensions

in inches (millimeters)



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (M11)	20*20		

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.04.22	First issue

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